

What Is Claimed Is:

5.6B4 > 1. A printer controller comprising:  
communication control means for receiving packet data  
from host computers and extracting print job data on the basis  
of the received packet data;

language control means for generating image data on the  
basis of said print job data;

print control means for controlling a print engine;

execution means for exclusively executing either said  
communication control means, said language control means, or  
said print control means according to priorities assigned to  
each of these means; and

alteration means for altering, on the basis of specific  
events, the relative priority sequence based on the priority  
between said communication control means and said language  
control means.

2. The printer controller according to claim 1, further  
comprising:

a first memory for storing the packet data received by  
said communication control means; and

first monitoring means for generating said specific  
events on the basis of the amount of packet data stored in  
said first memory.

3. The printer controller according to claim 2, wherein said alteration means raises the priority of said language control means higher than the priority of said communication control means when said first monitoring means decides that the amount of packet data stored in said first memory is below a specific value.

A 4. The printer controller according to claim 2 ~~or 3~~, wherein said alteration means raises the priority of said communication control means higher than the priority of said language control means when said first monitoring means decides that the amount of packet data stored in said first memory is over a specific value.

5. The printer controller according to claim 1, further comprising:

a second memory for storing the print job data extracted by said communication control means; and

second monitoring means for determining the amount of print job data stored in said second memory and generating specific events on the basis of the results of this determination.

6. The printer controller according to claim 5, wherein said alteration means raises the priority of said communication control means higher than the priority of said

language control means when said second monitoring means decides that the amount of print job data stored in said second memory is below a specific value.

A 7. The printer controller according to claim 5 ~~or 6~~, wherein said alteration means raises the priority of said language control means higher than the priority of said communication control means when said second monitoring means decides that the amount of print job data stored in said second memory is over a specific value.

8. A task control method for controlling the execution of a plurality of tasks, comprising the steps of:

receiving packet data from host computers and generating a communication task for extracting print job data on the basis of the received packet data, a language task for generating image data on the basis of said print job data, and a printing task for controlling a print engine;

exclusively executing either said communication task, language task, or printing task according to priorities assigned to each of these tasks; and

altering, on the basis of specific events, the relative priority sequence based on the priority between said communication control means and said language control means.

9. A program product in which is recorded a program to be executed by the processor of a printer, comprising:

a communication module for receiving packet data from host computers and extracting print job data on the basis of the received packet data;

a language module for generating image data on the basis of said print job data;

a print module for controlling a print engine;

an execution module for exclusively executing either said communication module, said language module, or said print module according to priorities assigned to each of these modules; and

an alteration module for altering, on the basis of specific events, the relative priority sequence based on the priority between said communication module and said language module.

10. A printer comprising:

a controller;

a print engine for printing on a print recording medium;

and

a communication interface connected to a network such that communication with host computers is possible;

said controller comprising:

communication control means for receiving packet data from host computers and extracting print job data on the basis of the received packet data;

language control means for generating image data on the basis of said print job data;

print control means for controlling a print engine;

execution means for exclusively executing either said communication control means, said language control means, or said print control means according to priorities assigned to each of these means; and

alteration means for altering, on the basis of specific events, the relative priority sequence based on the priority between said communication control means and said language control means.

11. A printer controller comprising:

communication control means for receiving packet data from host computers and extracting print job data on the basis of the received packet data;

language control means for generating image data on the basis of said print job data;

print control means for controlling a print engine;

execution means for exclusively executing either said communication control means, said language control means, or said print control means; and

alteration means for altering, on the basis of specific events, the relative time proportions between the execution time in which said execution means is to execute said communication control means and the execution time in which said execution means is to execute said language control means.

12. The printer controller according to claim 11, further comprising:

a first memory for storing the packet data received by said communication control means; and

first monitoring means for generating said specific events on the basis of the amount of packet data stored in said first memory.

13. The printer controller according to claim 12, wherein said alteration means raises the priority of said language control means higher than the priority of said communication control means when said first monitoring means decides that the amount of packet data stored in said first memory is below a specific value.

A 14. The printer controller according to claim 12 ~~or 13~~, wherein said alteration means raises the priority of said communication control means higher than the priority of said language control means when said first monitoring means

decides that the amount of packet data stored in said first memory is over a specific value.

15. The printer controller according to claim 11, further comprising:

a second memory for storing the print job data extracted by said communication control means; and

second monitoring means for determining the amount of print job data stored in said second memory and generating specific events on the basis of the results of this determination.

16. The printer controller according to claim 15, wherein said alteration means raises the priority of said communication control means higher than the priority of said language control means when said second monitoring means decides that the amount of print job data stored in said second memory is below a specific value.

A 17. The printer controller according to claim 15 ~~or 16~~, wherein said alteration means raises the priority of said language control means higher than the priority of said communication control means when said second monitoring means decides that the amount of print job data stored in said second memory is over a specific value.

18. A task control method for controlling the execution of a plurality of tasks, comprising the steps of:

receiving packet data from host computers and generating a communication task for extracting print job data on the basis of the received packet data, a language task for generating image data on the basis of said print job data, and a printing task for controlling a print engine;

exclusively executing either said communication task,  
language task, or printing task; and

altering, on the basis of specific events, the relative time ratio between the execution time in which said execution means is to execute said communication control means and the execution time in which said execution means is to execute said language control means.

19. A program product in which is recorded a program to be executed by the processor of a printer, comprising:

a communication module for receiving packet data from host computers and extracting print job data on the basis of the received packet data;

a language module for generating image data on the basis  
of said print job data;

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a print module for controlling a print engine;
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an execution module for exclusively executing either said communication module, said language module, or said print module; and



an alteration module for altering, on the basis of specific events, the relative time ratio between the execution time in which said execution module is to execute said communication control module and the execution time in which said execution module is to execute said language control module.

20. A printer comprising:

a controller;

a print engine for printing on a print recording medium;

and

a communication interface connected to a network such that communication with host computers is possible;

said controller comprising:

communication control means for receiving packet data from host computers and extracting print job data on the basis of the received packet data;

language control means for generating image data on the basis of said print job data;

print control means for controlling a print engine;

execution means for exclusively executing either said communication control means, said language control means, or said print control means; and

alteration means for altering, on the basis of specific events, the relative time ratio between the execution time in which said execution means is to execute said communication

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